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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/601,679	06/24/2003	Noriyoshi Kurotsu	03500.017343	9528

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EXAMINER

DICKERSON, CHAD S

ART UNIT	PAPER NUMBER
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2625

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/25/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/601,679	KUROTSU, NORIYOSHI	
	Examiner	Art Unit	
	Chad Dickerson	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>see attachment</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1, 6 and 11-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Re claim 1: the claim recites the limitation "the basis" in line 6. There is insufficient antecedent basis for this limitation in the claim. It is suggested to change the phrase "the basis" to -- a basis --.

Re claim 6: the claim recites the limitation "the basis" in line 3 on page 30. There is insufficient antecedent basis for this limitation in the claim. It is suggested to change the phrase "the basis" to -- a basis --.

Re claim 11: the claim recites the limitation "the basis" in line 22. There is insufficient antecedent basis for this limitation in the claim. It is suggested to change the phrase "the basis" to -- a basis --.

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Re claim 11: the claim recites "a program product" in the preamble and this statement renders the claim indefinite. The preamble of the claim is directed towards a program product and the body of the claim is directed toward a process. These differing parts fail to particularly point out whether the claim is directed towards a process or a program product. A claim is treated as a program product when a computer program is recited in conjunction with a physical structure. Claims 12-15 are also rejected since they depend on a rejected claim. See MPEP § 2106.01.

Re claim 16: the claim recites the limitation "the basis" in line 20. There is insufficient antecedent basis for this limitation in the claim. It is suggested to change the phrase "the basis" to -- a basis --.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Murakami et al (U.S. Pat. No. 2001/0038461).

Re claim 1: Murakami et al discloses a printer controller that has a printer perform print processing on print jobs transmitted from a plurality of terminals, an image forming apparatus for performing print processing on the plurality of print jobs, and a terminal that transmits print jobs to the printer controller, comprising:

a changing unit (15A) for changing a priority of a job when proxy printing is executed (i.e. the changing unit (15A) changes the priority of the terminals that has associated print jobs with that terminal. The terminals have a priority level and that level can be the same or different from the priority level of the actual print jobs. If the priority levels in figure 16 changes, then the print job priority of figure 17 also changes. All of this occurs while other processing is inputting different print jobs in different priority levels within the buffer; see figs. 14-17; paragraphs [0147]- [0167]); and

an executing unit (14A) for executing a printing process on a basis of the priority changed by said changing unit (i.e. the print job processing unit determines the next print job to be processed based on the priority levels. Since the priority levels are

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changed to reflect the terminal and print jobs with the highest priority are printed, it is inherent that when a printing process occurs while the printer is free, a print process is executed on the job which has the highest level of priority; see fig. 19; paragraphs [0168]-[0187]).

Re claim 2: Murakami et al discloses an apparatus, wherein said proxy printing is executed by changing a queue of a print job (i.e. the print jobs in the system move up and down in priority and therefore, the print jobs also move up and down in the order in the buffer. The changing in the order in the buffer of what print job to be processed is analogous to the changing a queue of a print job, since a queue is a buffer where events are temporarily stored to be processed later in the system; see fig. 17-19; paragraphs [0154]-[0163] and [0175]-[0181]).

Re claim 3: Murakami et al discloses an apparatus, wherein said changing unit (15A) raises the priority (i.e. the priority changing unit (15A) performs the process of raising the priority level; see figs. 18-20; see paragraphs [0162]-[0170] and [0182]-[0190]).

Re claim 4: Murakami et al discloses an apparatus, wherein said changing unit (15A) changes the priority on the basis of reception time of a print job (i.e. when subtracting the reception time from the current time, the elapsed time can be calculated from that

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result. Then, the elapsed time is compared to certain reference times and if a certain condition is met, the priority level of the terminal, also the printing jobs associated with that terminal, is changed. Therefore, the changing of the priority level is based on the reception time of the print job and the elapsed time of the print job; see figs. 18-20; paragraphs [0156]-[0166]).

Re claim 5: Murakami et al discloses an apparatus, wherein when reception time of the job which is proxy-printed is earlier than that of a print job which has already existed, said changing unit raises the priority of the job which is proxy-printed (i.e. when it is calculated that the elapsed time is greater than a predetermined margin (TK2), a considerable amount of time has passed since the reception of a print job has been instructed. This condition is given the highest priority over a print job that has been instructed to be printed, but has been on the buffer waiting to be printed and has existed on the buffer to be printed for a short time. In figure 18, the reception time is used to calculate the elapsed time (tk). The elapsed time is used to calculate if a print job, based on the reception time and elapsed time, whether a priority level should be raised or not. The priority level is raised in comparison to the other print jobs waiting on the buffer to be processed as well; see figs. 18-20; paragraphs [0156]-[0167]).

Re claim 6: Murakami et al discloses a printer controller that has a printer perform print processing on print jobs transmitted from a plurality of terminals; an image forming

apparatus for performing print processing on the plurality of print jobs, and a terminal that transmits print jobs to the printer controller, comprising:

a changing step of changing a priority of a job when proxy printing is executed (i.e. the changing unit (15A) changes the priority of the terminals that has associated print jobs with that terminal. The terminals have a priority level and that level can be the same or different from the priority level of the actual print jobs. If the priority levels in figure 16 changes, then the print job priority of figure 17 also changes. All of this occurs while other processing is inputting different print jobs in different priority levels within the buffer; see figs. 14-17; paragraphs [0147]- [0167]); and

an executing step of executing a printing process on the basis of the priority changed by said changing step (i.e. the print job processing unit determines the next print job to be processed based on the priority levels. Since the priority levels are changed to reflect the terminal and print jobs with the highest priority are printed, it is inherent that when a printing process occurs while the printer is free, a print process is executed on the job which has the highest level of priority; see fig. 19; paragraphs [0168]-[0187]).

Re claim 7: Murakami et al discloses a method, wherein said proxy printing is executed by changing a queue of a print job (i.e. the print jobs in the system move up and down in priority and therefore, the print jobs also move up and down in the order in the buffer. The changing in the order in the buffer of what print job to be processed is analogous to

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the changing a queue of a print job, since a queue is a buffer where events are temporarily stored to be processed later in the system; see fig. 17-19; paragraphs [0154]-[0163] and [0175]-[0181]).

Re claim 8: Murakami et al discloses a method, wherein in said changing step, the priority is raised (i.e. the priority changing unit (15A) performs the process of raising the priority level; see figs. 18-20; see paragraphs [0162]-[0170] and [0182]-[0190]).

Re claim 9: Murakami et al discloses a method, wherein in said changing step, the priority is changed on the basis of reception time of a print job (i.e. when subtracting the reception time from the current time, the elapsed time can be calculated from that result. Then, the elapsed time is compared to certain reference times and if a certain condition is met, the priority level of the terminal, also the printing jobs associated with that terminal, is changed. Therefore, the changing of the priority level is based on the reception time of the print job and the elapsed time of the print job; see figs. 18-20; paragraphs [0156]-[0166]).

Re claim 10: Murakami et al discloses a method, wherein in said changing step, when reception time of the job which is proxy-printed is earlier than that of a print job which has already existed, the priority of the job which is proxy-printed is raised (i.e. when it is

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calculated that the elapsed time is greater than a predetermined margin (TK2), a considerable amount of time has passed since the reception of a print job has been instructed. This condition is given the highest priority over a print job that has been instructed to be printed, but has been on the buffer waiting to be printed and has existed on the buffer to be printed for a short time. In figure 18, the reception time is used to calculate the elapsed time (tk). The elapsed time is used to calculate if a print job, based on the reception time and elapsed time, whether a priority level should be raised or not. The priority level is raised in comparison to the other print jobs waiting on the buffer to be processed as well; see figs. 18-20; paragraphs [0156]-[0167]).

Re claim 11: Murakami et al discloses a printer controller that has a printer perform print processing on print jobs transmitted from a plurality of terminals, an image forming apparatus for performing print processing on the plurality of print jobs, and a terminal that transmits print jobs to the printer controller, comprising:

a changing step of changing a priority of a job when proxy printing is executed (i.e. the changing unit (15A) changes the priority of the terminals that has associated print jobs with that terminal. The terminals have a priority level and that level can be the same or different from the priority level of the actual print jobs. If the priority levels in figure 16 changes, then the print job priority of figure 17 also changes. All of this occurs while other processing is inputting different print jobs in different priority levels within the buffer; see figs. 14-17; paragraphs [0147]- [0167]); and

an executing step of executing a printing process on the basis of the priority changed by said changing step (i.e. the print job processing unit determines the next print job to be processed based on the priority levels. Since the priority levels are changed to reflect the terminal and print jobs with the highest priority are printed, it is inherent that when a printing process occurs while the printer is free, a print process is executed on the job which has the highest level of priority; see fig. 19; paragraphs [0168]-[0187]).

Re claim 12: Murakami et al discloses a product, wherein said proxy printing is executed by changing a queue of a print job (i.e. the print jobs in the system move up and down in priority and therefore, the print jobs also move up and down in the order in the buffer. The changing in the order in the buffer of what print job to be processed is analogous to the changing a queue of a print job, since a queue is a buffer where events are temporarily stored to be processed later in the system; see fig. 17-19; paragraphs [0154]-[0163] and [0175]-[0181]).

Re claim 13: Murakami et al discloses a product, wherein in said changing step, the priority is raised (i.e. the priority changing unit (15A) performs the process of raising the priority level; see figs. 18-20; see paragraphs [0162]-[0170] and [0182]-[0190]).

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Re claim 14: Murakami et al discloses a product, wherein in said changing step, the priority is changed on the basis of reception time of a print job (i.e. when subtracting the reception time from the current time, the elapsed time can be calculated from that result. Then, the elapsed time is compared to certain reference times and if a certain condition is met, the priority level of the terminal, also the printing jobs associated with that terminal, is changed. Therefore, the changing of the priority level is based on the reception time of the print job and the elapsed time of the print job; see figs. 18-20; paragraphs [0156]-[0166]).

Re claim 15: Murakami et al discloses a product, wherein in said changing step, when reception time of the job which is proxy-printed is earlier than that of a print job which has already existed, the priority of the job which is proxy-printed is raised (i.e. when it is calculated that the elapsed time is greater than a predetermined margin (TK2), a considerable amount of time has passed since the reception of a print job has been instructed. This condition is given the highest priority over a print job that has been instructed to be printed, but has been on the buffer waiting to be printed and has existed on the buffer to be printed for a short time. In figure 18, the reception time is used to calculate the elapsed time (tk). The elapsed time is used to calculate if a print job, based on the reception time and elapsed time, whether a priority level should be raised or not. The priority level is raised in comparison to the other print jobs waiting on the buffer to be processed as well; see figs. 18-20; paragraphs [0156]-[0167]).

Re claim 16. Murakami et al discloses a printer controller that has a printer perform print processing on print jobs transmitted from a plurality of terminals, an image forming apparatus for performing print processing on the plurality of print jobs, and a terminal that transmits print jobs to the printer controller, comprising:

a plurality of print queues for managing a plurality of jobs (i.e. with a plurality of spaces on the buffer to manage the conditions of the print jobs, it is inherent that the system has a plurality of print queues for managing a plurality of print jobs; see fig. 16 and 17; paragraphs [0161]-[0163]);

scheduling means (14A) for processing a print job inputted to each of the queues on the basis of priorities allocated to the jobs (i.e. the print jobs on the buffer are given a certain priority level. Based on that priority level, the print jobs may be processed immediately or after other print jobs that have a higher priority than the one in question. The print job processing unit (14A) searches for a print job with the highest priority to be processed; see figs. 16-18; paragraphs [0158]-[0170]);

proxy means (15A) for executing proxy printing by moving the job from an original queue to another queue (i.e. when moving a print job from one priority level to another priority level, this is analogous to moving a job from one original queue to another queue. The means for changing the job from one queue to another is the priority changing unit (15A). This changes the time the event is processed and moves the event from a queue, or a location, that demands immediate processing to another

queue, or location, that may wait after the event with the highest priority is processed; see fig. 18-20; paragraphs [0157]-[0170]); and

priority changing means (15A) for raising the priority of the job when the proxy printing is executed by said proxy means (i.e. the priority changing unit (15A) performs the process of raising the priority level. This priority level is raised when it is found that a print job to be processed has been waiting a considerable amount of time. The reception time gives an indicator of the importance or priority level that a print job receives; see figs. 18-20; see paragraphs [0162]-[0170] and [0182]-[0190]).

Re claim 17: Murakami et al discloses a system, wherein said priority changing means raises the priority on the basis of reception time of the job (i.e. when subtracting the reception time from the current time, the elapsed time can be calculated from that result. Then, the elapsed time is compared to certain reference times and if a certain condition is met, the priority level of the terminal, also the printing jobs associated with that terminal, is changed. Therefore, the changing of the priority level is based on the reception time of the print job and the elapsed time of the print job; see figs. 18-20; paragraphs [0156]-[0166]).

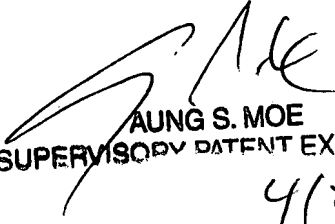
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chad Dickerson whose telephone number is (571)-270-1351. The examiner can normally be reached on Mon. thru Thur. 9:00-6:30 Fri. 9:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Aung Moe can be reached on (571)- 272-7314. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CD/CD
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April 23, 2007


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4/24/07